

**\*\* 2007.02.13 Meeting****\*\*\* News**

No new releases

**\*\*\* D0**

One remote site getting GPM busted.

One user submitted 100 batch jobs that did a DB query that took 1500 seconds. This took up all of the DB connections. This was a dataset definition for 40 files names but was splitting up snapshots. Not sure why this was so painful.

Events table is no longer being written to. DBAs will test clearing out of the events table.

D0 Reprocessing - 140k/events per day. Want to scale up to 250k/day. Downtime for OSG forwarding node due to hardware problems. Seems to be a network driver problem (system crashes) -- this is a new forwarding node. fcg demons keep crashing on OSG nodes - seems to be from port scanning.

**\*\*\* CDF**

Also had to restart the farm station on 2/8 when it became inconsistent and stopped delivering files.

sam\_db\_package depends on sam\_config - which causes confusion. Package depends on old version of sam\_config, which is bad. This should be fixed. Ask Steve.

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More about DB server problem and cdfsam01:

Looks like the DB servers are stuck due to Oracle v10 client library calling "times(NULL)". times returns the number of clock ticks since the machine was last booted (100 ticks per second). A 32 bit signed int overflows after ~248 days. The CDF machines were at 250 days. It appears that Oracle cannot handle the negative return from times(). This problem kills all Oracle clients on that machine (including direct access to Oracle with SQLPLUS). Indeed it looks like this is the case as some D0 machines with long up times (>250 days) also fail to reach the DB with sqlplus. This explains why restarting the DB servers don't work but a reboot does. Not clear why the Oracle client should need to check the uptime of the machine.

There doesn't seem to be a new version of the full Oracle client (at least not on the public Oracle pages). There is a newer "instant client" that is much smaller than the full client. We might not be able to compile cx\_oracle (but Robert got this to work). There is a 32 bit Solaris version of the instant client. Not a drop in replacement for oracle\_client.

So to do: make a UPS package out of the instant client and convert DB servers to use it.

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Use of /pnfs/patriot (do they need to get them via SAM).

**\*\*\* MINOS**

Fixed fragmentation as per Randolph's advice.

Send mail to Joe about down ganglia machine -- got a reply. Will be moved to a new machine in the afternoon.

**\*\*\* DB**

The load average of 30 was related to the D0 bad query.

**\*\*\* dCache/enstore**

Networking will be rebooting main nameservice. Should not notice if you have a backup nameservice defined.

Main changes to public dCache is addition of four new pool nodes. Not able to test gPlazma due to node problems.

Have list of tapes from CDF.

dCache upgrade on 3/15 for CDF?

From: Daria Zieminska <daria@indiana.edu>  
Subject: Re: SAM Operations Meeting Tomorrow (Tuesday) 9:30am Racetrack 88SAMDH  
To: Adam Lyon <lyon@fnal.gov>  
Cc: sam-design@fnal.gov  
Date: Tue, 13 Feb 2007 08:39:55 -0500 (EST)

D0 Sam shift report Feb 5 -- Feb 12 2007  
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2586. GPM became busted.  
User complains "when SAMgrid jobs are running on my farm, jobs on some work nodes fail to get any files from SAM". The shifter has pointed him to IT 1333 (A. Baranovski's advise to check that the problem node hostname resolves to proper interface address.)

2575. jobs on clued0 do not see SAM files  
Assigned: AAD0SAMexpert  
User complains about some of the datasets not being seen (on clued0).  
Robert sees no problem with the files.

2579/2578 Missing sam libraries in t07.01.00 (resolved)  
A software release problem:  
Herb Greenlee: "When I try to link a sam executable in t07.01.00 on clued0, I get errors from missing sam libraries. ... It turns out that product sam\_cpp\_api isn't being setup by setup D0RunII t07.01.00."  
Installed by Alan Joncheere.

On Mon, 12 Feb 2007, Adam Lyon wrote:

> Hi,  
>  
> We'll have the regular SAM Operations Meeting Tomorrow (Tuesday) at  
> 9:30am in the Racetrack at 88SAMDH.  
>  
> The usual agenda is...  
>  
> 1) Project news, releases  
> 2) D0  
> 3) CDF  
> 4) MINOS  
> 5) DB  
> 6) enstore/dCache  
>  
> Please send me reports by tomorrow morning. Thank you.  
>  
> Note that if the weather is bad, I may be attending the meeting  
> virtually from home.  
>  
> --- Adam  
>  
>

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Daria

From: Stefano <stefano.giagu@gmail.com>  
Subject: CDF SAM shift report  
To: Adam Lyon <lyon@fnal.gov>  
Cc: sam-design@fnal.gov  
Date: Tue, 13 Feb 2007 11:48:26 +0100

CDF SAM shift report: week Tue. Feb. 6th - Mon. Feb. 12th:  
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Wed. Feb. 7th:

- dcache pool: r-fcdfdata094-1/2/3 in trouble. Fixed by restarting fcdldata094.

Sat. Feb. 10th/ Sun. Feb. 11th:

- SAM At A Glance reported cdf-taiwan SAM station as unreachable. Mail sent to the station administrator (mengho@gate.sinica.edu.tw), but e-mail rejected because user unknown.

- cdfsam01 and cdfsam18 in trouble since ~7pm of Saturday.

Dehong tried to restart the servers several times w/o success.

Helpdesk call opened Sunday by Krzysztof for cdfsam01. Station rebooted Sunday 8:20.

The sam services had been gradually resumed between 8am and 1pm, Krzysztof moved all the db servers to cdfsam01 because they did not want to run on

the other nodes (Krzysztof is investigating the problem).

During the process of moving the db servers to cdfsam01 a problem has been encountered, traced by Krzysztof to an explicit dependence on the version of sam\_config in sam\_db\_srv\_pkg.

So far the dependence has been corrected locally on cdfsam01 for the sam\_db\_srv\_pkg v8\_0\_5.

Mon. Feb 12th:

- The upload process on fcdldata134 got stuck, probably related to the SAM problems

during the weekend. Dehong killed the process and this fixed the problem.

- Problems with Enstore movers: 9940B11, 9940B22 and 9940B25. Thought to be probably caused by a maintenance task. Addressed by enstore-admin.

Cheers, Stefano

From: Arthur Kreymer <kreymer@fnal.gov>  
 Subject: Minos status 2007 Feb 13  
 To: sam-design@fnal.gov  
 Cc: minos\_sam\_admin@fnal.gov  
 Date: Mon, 12 Feb 2007 18:18:14 -0600 (CST)

Minos status 2007 Feb 13

General -

Monte Carlo import continues, 2.5 TB so far

File Priming -

Tested herber's advice to avoid file fragmentation by priming,  
 creating a defragmented file then overwriting it.

I primed using `dd if=/dev/zero of=${FILE} bs=1M count=10`  
 Tested 6 writes at 50 KB/sec to files of 10 MB (2500 blocks)  
 Normal file had 1500 extents per file  
 Primed file had 1 extent per file.

We have a winner !

All of CD's ganglia monitoring has been down since Thursday AM.  
 Failed disk on node cdfpca, still no estimate for repairs.

Enstore -

DCache -

Planning pool reallocation for the Feb 15 all day DCache outage,  
 setting the appropriate file families on existing directories.

SAM -

IT 1894 Need 'sam locate' in C++ API - progress ?

Oracle -

OPEN ISSUES

IT 1894: sam locate via C++ api, for simple client needs  
 IT 1979: Compiler warnings from sam\_cpp\_api  
 IT 2071: quadratic project startup time growth (from Nov 1 2005)

PLAN -

Migration to 9940B tape can proceed anytime... when ?  
 New cache space scheduled February 15  
 Update sam dbbservers to v8  
 Complete upgrade to v10 oracle client.

From: Anil Kumar <akumar@fnal.gov>  
 Subject: Re: SAM Operations Meeting Tomorrow (Tuesday) 9:30am Racetrack 88SAMDH  
 To: sam-design@fnal.gov  
 Date: Mon, 12 Feb 2007 15:59:35 -0600

Jan 2007 Oracle Critical Patch has been released. Planning to deploy this patch along with OS patches and Listener tuning patches on d0, cdf and minos databases.

Schedule : d0ofdev1 jan 30 4 hrs starting at 8AM OS and Security Patch - Done

d0ofintl/d0ofprdl - Mar 06 ORA-2000 , Security Patch and OS patches

cdfofpr2 - Mar 15

D0 :

- Load Average on d0ora2 jumped to 30. There were 20 connections by DBS\_USER\_POOL from d0dbsrv09, 10 , 11 and 12 nodes. Steve W. is going to follow-up with User and restart the server.
- On 6th Feb, d0 events db entry will be turned off. DBAs will start dropping the events data on d0ofdev1.

- created sam shifter account for Marc-Andre Pleier

Alerts :

Message=Tablespace [OPERATIONAL\_IDX\_01] is [80 percent] full

Action : Added 8GB

- Drop the index on data\_files on file\_name column - Done
- v6\_4 index on create\_date of data\_files against d0ofdev1 done
- Draft Plan to remove the events :  
[http://www-css.fnal.gov/dsg/internal/d0\\_of1\\_dbs/plan\\_to\\_remove\\_events\\_from\\_d0\\_of.htm](http://www-css.fnal.gov/dsg/internal/d0_of1_dbs/plan_to_remove_events_from_d0_of.htm)
- Service Request with Oracle on Full table scan Vs Index scan on data\_files\_param\_values.  
 Development is working on Bug Fix. Bug# 5601578 No time estimate yet for bug fix.

CDF :

- Alerts
- Message=Tablespace [OPERATIONAL\_IDX\_01] is [80 percent] full
- Action : Added 4GB
- v6\_4 index on create\_date of data\_files against cdfofdev - done
- Full cut of V6\_3 pending on cdfofint and cdfofpr2.

MINOS :

- v6\_4 index on create\_date of data\_files against minosdev - done

----- Original Message -----  
 From: "Adam Lyon" <lyon@fnal.gov>  
 To: <sam-design@fnal.gov>  
 Sent: Monday, February 12, 2007 3:47 PM  
 Subject: SAM Operations Meeting Tomorrow (Tuesday) 9:30am Racetrack 88SAMDH

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From: David Berg <berg@fnal.gov>  
Subject: enstore/dcache report  
To: sam-design@fnal.gov  
Cc: enstore-admin@fnal.gov  
Date: Mon, 12 Feb 2007 18:25:51 -0600 (CST)

enstore/dcache report  
=====

#### Operations

- o nothing to report

#### Downtimes

- o Feb 15, public enstore, all day (6:30 am to 5 pm)
  - upgrade stkensrv0 (volume/file database)
  - enstore s/w update
- o Feb 15, public dcache, all day (6:30 am to 5 pm)
  - reconfigure all pools to ~1 TB each  
(some files will be moved, but none should be lost)
  - 4 new pool nodes (~5 TB ea) will be split between Minos, exp-db  
(Minos keeps their existing raw data write pools;  
Minos, exp-db to no longer write to shared pools)
  - configure and turn on gPlasma for grid certificate authentication
- o Mar 6, 1st Tuesday, D0 enstore
  - enstore s/w update, should take 1/2 hour
- o Mar 15, Thursday after 2nd Wednesday, CDF enstore
  - enstore s/w update, should take 1/2 hour

Thanks,  
David

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> --  
> Adam Lyon (lyon@fnal.gov)  
> Fermi National Accelerator Laboratory  
> Computing Division / D0 Experiment  
> Running Experiments Operations Group Leader  
> 630-840-5522